



Cypress USB to Serial Quick Start and User Guide

Quick Start Developers Guide

This is a simple description of the steps needed to use the USB to serial reference design.

1. Setup Development Kit

The first step is to setup the necessary development kit. The development kit that will be used will depend on the choice of microcontroller. Simply follow the installation instructions that come with the development kit.

2. Customize Firmware

The next step is to customize the USB to serial firmware to fit your application. This will include changing the value of the vendor and product ID in the device descriptor. Other changes may also be necessary in the firmware if the application requires any specialized use of handshaking signals. Please refer to the design notes included in this package for an explanation of the firmware and where and how to make changes to it.

3. Connect Serial Device to Development Kit

Interface the USB to serial reference design with the existing serial device. A description of pin assignments and how to interface the devices is given in the hardware section of the design notes.

4. Enumerate Device

Connect the development kit, with the firmware running, to the USB port on the computer and make sure that it enumerated properly. This can be verified by opening the device manager and looking for a Human Interface Device that was created.

5. Test Firmware

Use the HidCom test application to test the device. This application begins by detecting the USB to serial device and sets the proper communication settings for it. At that point you can send and receive data, set and clear handshaking signals and read the state of the handshaking signals on the device.

6. Create INF file

After the firmware has been verified to function correctly, it is then necessary to create an INF file so that the enumeration process calls on the virtual port emulation driver. The HidCom test application has a button that is used to automatically generate an INF file that corresponds to the VID and PID which it is currently communicating with.

7. Install the Com Port emulation driver

Install the Cypress COM port emulation driver by simply running the HidComInst executable that comes with this package. To verify that the driver was loaded correctly you must look at the device manager once again. This time check under COM ports and make sure that the Cypress Virtual Port has appeared.

8. Run application

Run the software application that is supposed to work with your device. Connect it to the COM port associated with the virtual COM port. The virtual COM port is usually labeled with the number of the next unused COM port. For example if you have two ports on your system which are labeled COM1 and COM2 then the virtual COM port will be COM3.